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PREVALENCE OF MAJOR DENTAL DISEASES AMONG WORKERS IN MACHINE-BUILDING ENTERPRISES

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Relevance of the study. The scientific justification of a comprehensive dental rehabilitation system for machine-building workers is based on the identification of specific risks (chemical, physical, and psycho-emotional factors) and the development of a multi-level program that includes primary prevention (hygiene training, fluoridation, nutrition), secondary (treatment of caries, periodontal diseases, sanitation) and tertiary (restoration, prosthetics, rehabilitation) in order to reduce morbidity and improve health by increasing labor productivity, which is confirmed by research, for example, in the field of caries prevention in electroplating workers. One of the key points in this context is to ensure the sanitary and hygienic well-being of the working population. At the same time, it is known that the impact of adverse production factors of a biological, chemical and physical nature leads to changes in the functioning of various systems of the human body. The impact of adverse factors of biological, chemical and physical nature leads to changes in the functioning of various systems of the human body. A large number of studies have shown that the variety and uniqueness of the etiological factors of the production environment, their various combinations! and the ways of influencing the body indicate the peculiarities of the development and course of occupational pathology, determine the uniqueness of their pathophysiological and pathomorphological essence. A complex of occupational factors contributes to the development of chronic diseases of the oral cavity, such as hypertrophy of the palatine tonsils, subatrophic diseases of the oral mucosa, inflammation of periodontal tissues, carious and non—carious lesions of the hard tissues of the teeth. Studies of the epidemiology of dental diseases conducted in many countries of the world indicate significant differences in the prevalence and intensity of dental caries, periodontal diseases and oral mucosa, and the determining role of natural, social, domestic, cultural, and occupational factors in the development of these processes.

The main influence of production factors is manifested through air pollution of the work area, work clothes, skin and mucous membranes, which occurs as a result of imperfect technological processes or non-compliance with safety regulations. Research data from chemical workers showed that the damage to the hard tissues of the teeth of workers in these industries was more than 90%, the CPI index, depending on work experience, age, body condition and saliva properties, ranged from 2.0 to 24.0 units. The influence of gas pollution in the workplace, mechanical and thermal stresses, temperature fluctuations, conditions! The impact on the pH and buffering capacity of workers' saliva, the macro - and microscopic composition of dental hard tissues, and the resistance of enamel to adverse factors contributed to the appearance of cracks and necrosis of enamel. A high level of non-carious lesions, the prevalence of periodontal diseases with a predominance of severe forms of lesions and diseases of the oral mucosa, mainly with hyperkeratosis and suppression of all types of taste sensitivity. Under the influence of these harmful substances, suppression of local immunity was noted, which manifested itself in a decrease in the level of sIgA and lysozyme, and the dependence of the prevalence of lesions of the oral cavity on the length of service and age was revealed.

When studying the dental morbidity of workers in the fuel production of an oil refinery, a high frequency of keratoses of the oral mucosa was determined, which occurred in workers of the enterprise 16 times more often than in workers of the control group. The direct dependence of the prevalence of these diseases on production conditions has also been revealed. These data confirm the data obtained during the survey of workers in the oil refining industry in Germany. Occupational pathology of oral tissues of workers in the oil refining industry, keratosis of the mucous membrane of the cheeks, corners of the mouth and hard palate. When studying the dental morbidity of workers employed in chemical production, the prevalence of carious lesions of teeth was 100% with an average CP of 21.0±0.24; in

24%, the presence of a wedge-shaped defect and in 64%, a combination of pathological erasure with a wedge-shaped defect.; in 18% - leukoplakia, the intensity of dental diseases increased with increasing length of service [1.3.5.7.9.11.12].

Analyzing the literature data on the impact of occupational and industrial factors of various chemical industries on the formation of dental pathology, it can be stated that the prevalence of diseases of dental hard tissues, periodontal tissues and oral mucosa in workers of these industries was significantly more common than in control groups, where there was no effect of chemicals on the organs of the oral cavity. Among periodontal diseases, gingivitis occurred mainly in people with less than 10 years of experience, and periodontitis in workers with more than 10 years of experience. As the length of service increased, the number of workers with moderate periodontitis increased. The most common disease of the oral mucosa turned out to be keratosis, which was observed in workers 6-10 times more often than in the control groups. At the same time, all the authors, without exception, pointed to the existence of a link between dental lesions, working conditions and work experience, which confirmed the professional nature of this pathology. • Specific risk factors: Machine-building workers are exposed to dust, chemicals, vibration, noise, and stress, which increases the risk of tooth decay, periodontal disease, tooth wear, and injury. • Increased prevalence: Studies show a high prevalence of dental diseases among the industrially employed population, which requires a targeted program. • An integrated approach: The need for a combination of hygienic, dietary, professional and therapeutic measures based on the principles of primary, secondary and tertiary prevention is substantiated. • Primary prevention: Dental education: Individual and group training in proper oral hygiene. o Professional hygiene: Regular dental appointments (1-2 times a year). o Fluoridation: Endogenous use of fluoride preparations to strengthen enamel. o Rational nutrition: Correction of diet, restriction of sugar, improvement of nutrition. • Secondary prevention (Treatment): o Early detection: Medical examination and follow-up. Oral sanitation: Timely treatment of caries, pulpitis, periodontitis and gum diseases. • Tertiary rehabilitation: o Restoration: Restoration of destroyed teeth. o Prosthetics: In case of tooth loss. o Orthodontic treatment: Bite correction (if necessary). • Integration into the medical unit of the enterprise: The inclusion of dental care in the programs of industrial medicine. • Monitoring: Regular questionnaires and surveys of employees to assess the effectiveness of the system [2.4.6.8.10.12.13.14].

Conclusion. This system allows not only to preserve teeth, but also to increase overall performance and reduce the loss of working time due to dental problems. To study the prevalence of caries, non-carious lesions of teeth, diseases of periodontal tissues and oral mucosa, the state of nonspecific resistance of the body and local immunity of the oral cavity, the effectiveness of antioxidant protection of oral fluid in workers of basic specialties exposed to a complex of harmful substances of petrochemical production.

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